Ministry of the Interior, Kingdom of Saudi Arabia,
High Commission for Industrial Security HCIS

HCIS AND THE NEW SECURITY & SAFETY DIRECTIVES

Understanding the New Directives and their impact on the projects and existing security of industrial facilities in KSA




HCIS: Who are they?

The High Commission for Industrial Security is part of the Ministry of Interior. It is responsible for the development and implementation of security, safety and fire protection strategies kingdom-wide.

HCIS: Who are they?

The national security of Saudi Arabia, including the security of the economy and the well being of its population, depends directly on physical and operational safety of all types of industrial facilities across Saudi Arabia. Therefore, the HCIS shall have the ultimate authority on administering these requirements.

The HCIS is the "Authority having Jurisdiction"

HCIS History

In the past the HCIS was known as the HCISS and worked to an old set of standards. The name was changed to the HCIS and a new set of standards were issued by Royal Decree in 2010. These new standards are the SEC and SAF directives and must be applied to every industrial project in Saudi Arabia. The Security directive is number 3870 dated 12/6/1431 Hajiri, and the Safety directive number is 3871 dated 12/6/1431 Hajiri. The dates equate to 20th May 2010 Gregorian.

HCIS Approval

HCIS approval for security and safety systems is NOT a blanket approval. It is an individual approval for each and every project no matter the owner or type of project


Security

Security Directives

General Requirements (SEC-01)

4.1.1: The HCIS reserves the right to modify and/or make changes to the Security Directives without prior notice.

4.1.2: The criticality of each facility varies depending on the product or service provided.

4.1.3: The HCIS will have the ultimate authority on classifying all facilities.

4.1.4: The level of protection shall be dictated by its security classification.

4.1.6: All security design shall be carried out by qualified security consultants approved by HCIS.

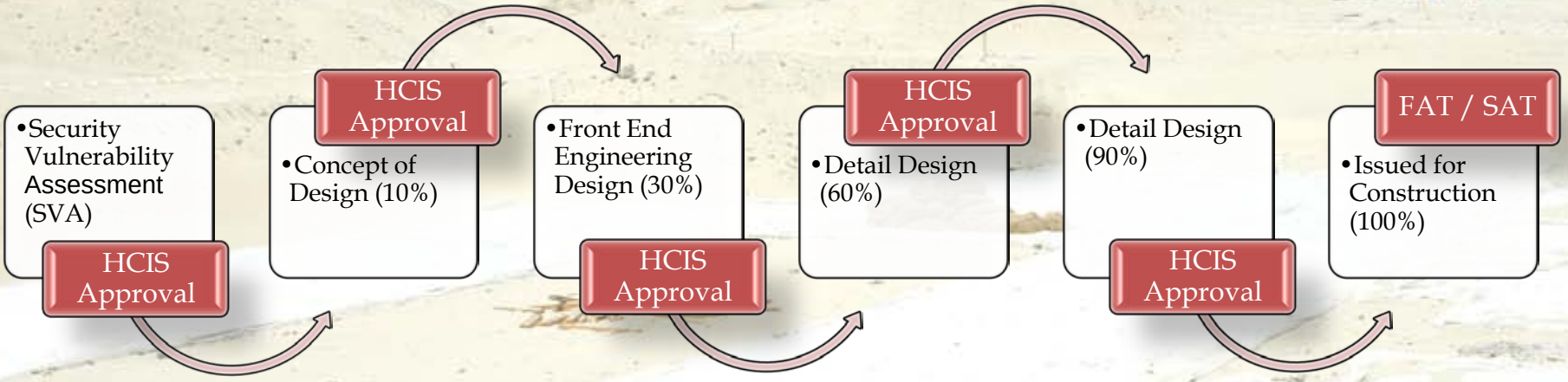
4.1.7: The operator shall develop a detailed security vulnerability assessment, or risk analysis, performed by a qualified security consultant, that shall be used as the basis of facility qualification. This SVA shall follow the API Methodology.

4.1.8 The facility classification and Risk Analysis shall be submitted to HCIS for approval prior to security system design or implementation.

The Security Directives

- SEC 01 - Application of Security Directives
- SEC 02 - Security Fencing
- SEC 03- Security Gate
- SEC 04 – Security Lighting
- SEC 05 - Integrated Security Systems
- SEC 06 - Security Devices
- SEC 07 - Power Supply
- SEC 08 - Communications
- SEC 09 - Security Doors
- SEC 10 - Security Locks
- SEC 11 - Identification Cards
- SEC 12 - Identification Protection

The HCIS Security Process:



- **Security Integrator Prequalification Review (HCIS bidder approval process required)**
- **Technical Scope of Work for client (Request for Proposal)**
- **Bid Evaluation (technical evaluation of integrator bids)**

- **Policy, Plan and Procedures**
- **Manpower Study**
- **Security Awareness and Training Programmes**

Security Directives:

Procedure

Security Vulnerability Assessment (SVA)

The plant owner commissions a Security Vulnerability Assessment to be carried out by an HCIS approved Security Consultant.

The SVA has to be carried out following the API methodology. The purpose of the SVA is twofold:

1. **Identify critical assets, threats, risks, vulnerability and propose mitigation measures**
2. **Classify the facility according to a class 1 to 4 system.**

Security Directives:

Procedure

Concept of design (COD)

After the approval of the Security Vulnerability Assessment, the plant owner commissions an HCIS approved Security consultant to take the results from the SVA and produce a security Concept of Design (COD)

This Concept of Design (also called 10% Preliminary design) provides a design solution to the mitigation measures proposed and approved during the SVA exercise.

Security Directives:

Procedure

Front End Engineering Design (FEED)

After the approval of the concept of design (COD), the plant owner commissions an HCIS approved Security consultant to produce a Front End Engineering Document from the SVA and Concept of Design (COD) .

The FEED (or 30% Design) will form the basis of the Technical Scope of Work that will form part of the Request for Proposal (RFP).

This RFP will be issued to approved System Integrators to prepare a Tender Bid.

The TSOW and RFP need not be approved by HCIS, but the FEED document does and the security system integrators must be approved by the HCIS.

The EPC should submit the prequalification document of the security system integrator to the HCIS consultant for comment/approval before submission to the owner for transmission to and approval by the HCIS.

Security Directives:

Procedure

Detailed Design 60%

After the award of the security contract to an approved integrator the integrator will produce a 60% detailed design that is in accordance with the FEED design (30%). The design will include details of all hardware and software to be used and will detail how the software is configured to produce an integrated system.

The 60% detailed design is submitted to the HCIS approved consultant for comment and review before submittal by the EPC to the owner for transmission and approval by the HCIS.

Security Directives:

Procedure

Detailed Design 90%

After the approval of the 60% detailed design the Security Systems integrator will produce the 90% engineering submittal. This will include information on the total system down to individual field item level showing location, mechanical installation and all electrical terminations

The 90% detailed design is submitted to the HCIS approved consultant for comment and review before submittal by the EPC to the owner for transmission and approval by the HCIS.

Security Directives:

Procedure

Issued For Construction

After the approval of the 90% design package the Security Systems Integrator will prepare the system for the Factory Acceptance Test (FAT)

The Security System Integrator will produce a FAT document for submittal and approval by the HCIS before the FAT is carried out .

The FAT will be attended by the HCIS representative, the HCIS consultant, the owner and the EPC.

The approved consultant will lead a Site Acceptance Test (SAT) and issue a Final Completion report (100%) for the HCIS.

Safety

4.5 Requirements for Executing Fire Protection Projects (SAF)

4.5.1 Designers, suppliers, contractors shall be approved by the HCIS.

4.5.3 Contractors and suppliers shall be certified by the Ministry of Interior (Civil Defense) and Ministry Commerce and Industry.

4.5.4 The Owner shall submit qualification documents to the HCIS for approval

4.5.5 The Owner shall ensure that the company selected for safety and fire protection related work shal adequate engineering capabilities and qualified manpower to design, install, test and maintain the safet fire protection systems and execute all other work requirements competently. .

4.5.7 The HCIS reserves the exclusive right to approve or reject any candidate design agency performin work.

4.5.8 The Owner shall ensure that the company selected for safety and fire protection related work shal prior technical experience.

4.5.11 The HCIS shall have the right to reject any equipment, system, or suppliers

4.5.14 The Owner shall not permit any start on safety and fire protection related work until HCIS approv the design, contractor, major fire protection equipment and systems is received.

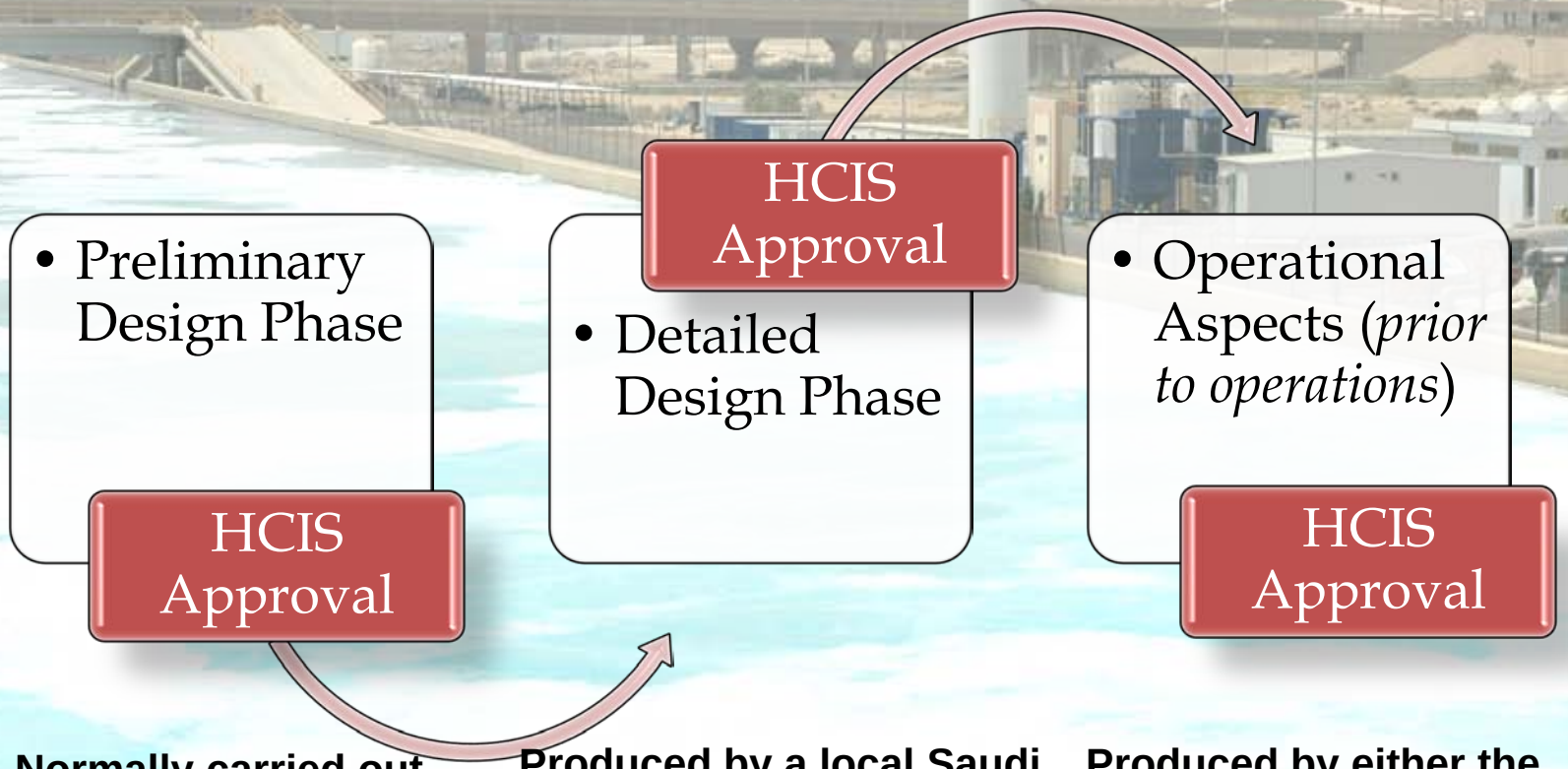
The Safety Directives (1)

- SAF 01 -Application of Safety and Fire Protection Directives
- SAF 02 - Environmental, Health and Safety (EHS) Management
- SAF 03 - Plant Buildings
- SAF 04 - Fire Protection Systems
- SAF 05 - Industrial Drainage
- SAF 06 -Plant Layout, Spacing, and Access
- SAF 07 - Well site Safety
- SAF 08 - Storage Tanks and Storage Vessels
- SAF 09 - Fireproofing in Plants
- SAF 10 - Pressure Piping, Pressure Vessels, and Transportation Pipelines
- SAF 11 - Emergency Shutdown, Isolation, and De-pressuring
- SAF 12 - Electrical Safety

The Safety Directives (2)

- SAF 13 - Work Permits
- SAF 14 - Safe Manufacture, Transportation, Storage, and Use of Explosive Materials and Pyrotechnic Articles
- SAF 15 - Private Industrial Fleet Vehicle Filling Stations
- SAF 16 - Bulk Plants and Air Fuelling Support Facilities
- SAF 17 - Offshore Production Facilities
- SAF 18 - Mines and Mineral Processing Plants
- SAF 19 - Electric Power Generating Plants and Associated Facilities
- SAF 20 - Pre-Incident Planning and Management of Emergencies
- SAF 21 - Personal Protective Equipment
- SAF 22 – Portable Electric and Electronic Devices

Safety Directives:

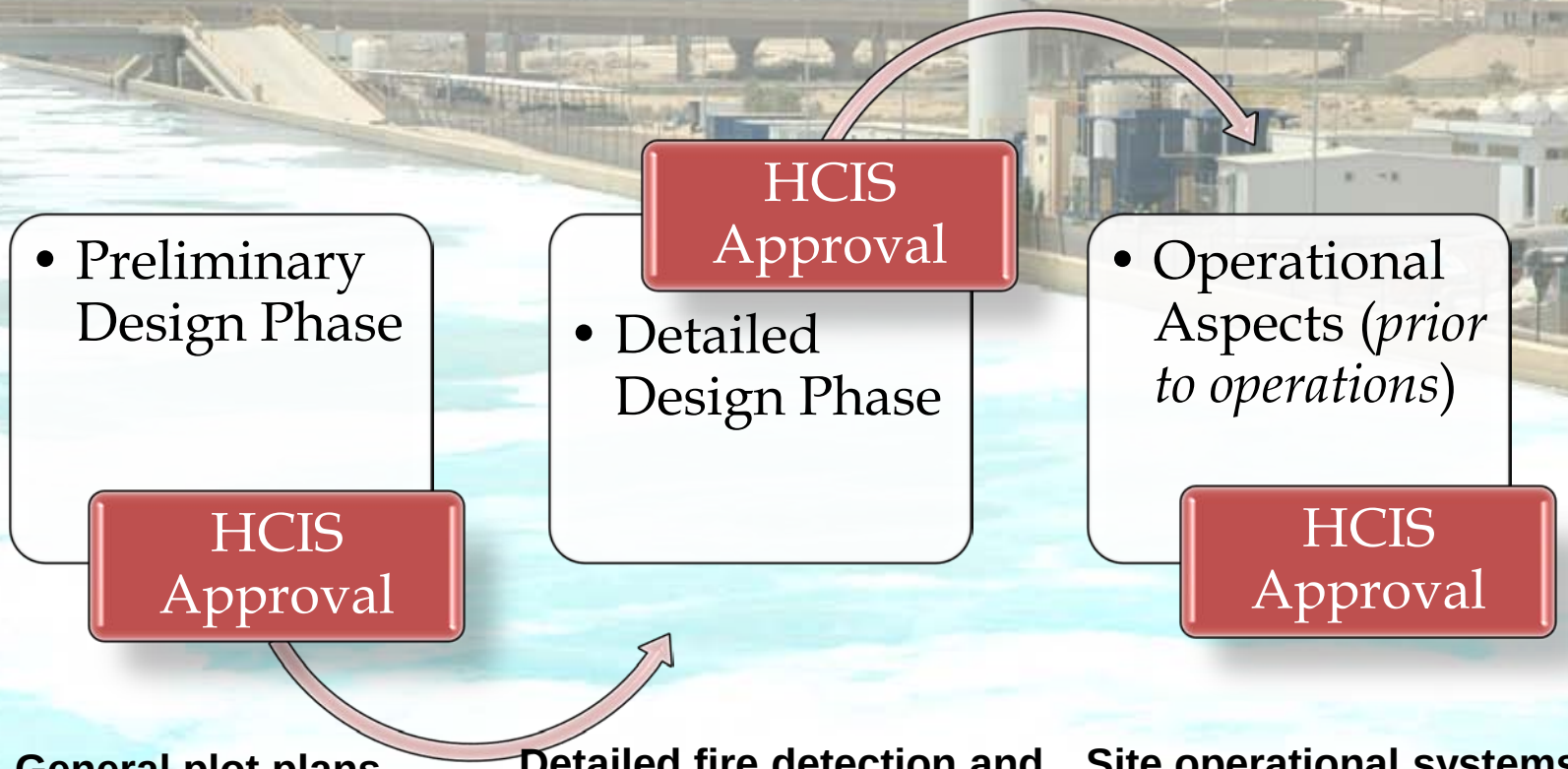


Normally carried out at the FEED stage to produce a document that meets HCIS requirements and an EPC can bid against

Produced by a local Saudi Fire contractor as part of a design, supply, install and commission contract

Produced by either the owner or the EPC and must include all operational aspects of safety.

Safety Directives:



General plot plans showing fire main & pump house, site drainage, building spacing etc. and general specifications

Detailed fire detection and protection layout including all types of extinguishing systems and hydraulic calculations

Site operational systems including Incident Management System, permit to work system and all other safety related procedures

Safety Directives:

Procedure

Preliminary Design Phase

When the project is being designed at the FEED stage a preliminary design for the site should be produced by the FEED engineers.

The FEED should take into account all 22 of the SAF standards.

The preliminary design has to be submitted to an HCIS approved consultant for approval before the plant owner submits to HCIS for final approval.

The HCIS consultant will produce a compliance matrix to show compliance/non compliance to the HCIS codes and consult with the FEED engineers to then ensure that the preliminary design is 100% in compliance.

The preliminary design together with the compliance matrix is submitted by the plant owner to the HCIS for approval

Safety Directives:

Procedure

Detailed Design Phase

The EPC will receive a bid package from the owner, based on the FEED preliminary engineering. This includes the requirement that the EPC selects a fire engineering company that meets the requirements of HCIS SAF 1.

The EPC should select a fire contractor(s) that meets the requirements of the HCIS and submit the companies pre-qualification document to the HCIS consultant for comment. If the consultant approves the document then the EPC should submit to the plant owner for transmission to and approval by the HCIS.

The EPC should issue tender enquiries to the chosen approved contractor(s)

The EPC should award the contract for the design, supply, installation and commissioning of the fire systems to the approved fire contractor

Safety Directives:

Procedure

Operational Aspects (*prior to operations*)

The owner, in conjunction with the EPC will produce Site operational systems including Incident Management System, permit to work system and all other safety related procedures

The Incident Management System (IMS) shall meet the requirements of SAF20 and be integrated with the Site Security Systems and the Site wide fire alarm and fire protection system.

The IMS should be integrated from a hardware and software perspective to produce an easy to use system that can be used to:

- **Reduce loss of life**
- **Reduce loss or damage to assets**
- **Ensure any situation is controlled**
- **Ensure the safety of personnel and Assets**
- **Reduce hostile effects in the environment.**

Safety Directives:

Procedure

Operational Aspects (*prior to operations*)

The IMS must provide Fast, Effective Access to Critical Incident Data

Clear Command Communications

Common Operational Picture:

- **Shared across an incident**
- **Shared between many agencies**

Capacity to:

- **Operate on a massive scale**
- **Operate over long timescales**
- **Manage massive numbers of victims and resources**
- **Minimise ecological and environmental damage**

Operational Aspects (*prior to operations*)

Safety Directives:

Procedure

The Incident Management System shall meet the requirements of the NFPA.

NFPA 450 Emergency Medical Services and Systems

NFPA 472 Competence of Responders to Hazardous Materials/ Weapons of Mass Destruction Incidents

NFPA 473 Competencies for EMS Personnel Responding to Hazardous Materials / Weapons of Mass Destruction Incidents

NFPA 1006 Rescue Technician Professional Qualifications

NFPA 1620 Pre-Incident Planning

NFPA 1670 Operations and Training for Technical Rescue Incidents

NFPA 1951 Protective Ensembles for Technical Rescue Incidents

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These New Directives must be applied on all new projects in the Kingdom of Saudi Arabia for Security and Safety.

From July 2012 they will apply to all existing industrial facilities in Saudi Arabia.

Any plant owner not meeting the standards will face serious consequences.




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QUESTIONS

Understanding the New Directives and their impact on the projects and existing security of industrial facilities in KSA